

REMARKS

Reconsideration of this application is respectfully requested on the basis of the following remarks.

Restriction Requirement

The Examiner acknowledged the Applicants' reply filed on February 16, 2006, which elected, with traverse, the claims of Group I, claims 1-12 and 19, drawn to Sequence IDs 1 and 8. The Examiner did not find the traversal persuasive and, therefore, made the restriction requirement final. Claims 13-18 were withdrawn from consideration as being drawn to a non-elected group, and claims 5-12 of Group I were also withdrawn from consideration as being directed to non-elected primer pair sequences. Accordingly, the Office Action was directed to claims 1-4 and 19 as drawn to the primer pair of SEQ. ID No: 1 and SEQ. ID No: 8.

The Examiner did not acknowledge the Applicants' argument that the Director has declared that a reasonable number of nucleotide sequences may be claimed in a single application and further that 10 sequences normally constitute reasonable number for examination purposes, other than to state that examination of 10 nucleotide sequences would be a burden. See *Examination of Patent Applications Containing Nucleotide Sequences*, 1192 O.G. 68 (November 19, 1996). The Applicants respectfully inform the Examiner that they have filed a Petition Pursuant to 37 C.F.R. § 1.144 for a reversal of the final restriction requirement.

Claim Rejection – 35 USC § 102(b)

The Examiner rejected claims 1-3 Under 35 USC § 102(b) as being anticipated by U.S. Pat. No. 5,474,796, issued December 12, 1995 to Brennan. The Examiner asserted that the claims include sequences that are "fully complementary" to SEQ. ID No: 1 or SEQ. ID No: 8, but that the specification provides no guidelines as to what is encompassed by a sequence that is "fully complementary" to the

identified sequences. The Examiner further asserts that such phrase could include sequences that are 10-mer fragments of SEQ. ID Nos: 1 or 8 as allegedly taught by Brennan. Therefore, according to the Examiner, Brennan inherently teaches 10-mer combinations that are fully complementary to SEQ. IDs 1 and 8.

The Applicants respectfully traverse the rejections. The Court of Appeals for the Federal Circuit clearly held, *en banc*, in *Phillips v. AWH Corporation*, 415 F. 3d 1303 (Fed. Cir. 2005) that the claims must be read in view of the specification as it would be interpreted by one of ordinary skill in the art. There is no indication in the instant specification that fragment of sequences complimentary to SEQ. IDs 1 and 8 are intended. Therefore, a person of ordinary skill in the art, would interpret the phrase "a sequence which is fully complementary" as being the same length as the original sequence and comprised of nucleotides that are complimentary to the nucleotides in the same position in the original sequence. Therefore, a sequence fully complimentary to SEQ. ID 1 is the sequence: ctaccactat accatctatg tcctaaacc.

Claim Rejection – 35 USC § 103

Examiner rejected claims 1-4 and 19 Under 35 USC § 103(a) as unpatentable over Gravitt et al. in view of Chan et al. and Gelfand et al. Among other things, the Examiner asserted that: (i) Gravitt teaches the use of primers to amplify genital HPV sequences in a PCR reaction; (ii) Chen teaches the alignment of certain HPV genes; and (iii) Gelfand provides guidance in choosing particular primers and also teaches a kit that include primers and materials needed for amplification. Therefore, according to the Examiner, a person of ordinary skill in the art would have been motivated to select any number primers, including the claimed primers, and could design, create and test those primers through routine experimentation.

The Applicants respectfully traverse the rejection. The cited references do not teach or suggest the claimed primers. The Examiner's argument is that it would

have been obvious to a person of ordinary skill in the art to have attempted to design and test these primers. The Examiner states that designing primers is routine, and therefore, the claimed primers could have been designed and tested. In other words, it would have been obvious to try to design and test the claimed primers. However, "obvious to try" is not the same as obviousness, and it does not render a claimed invention unpatentable under section 103. *In re Fine*, 837 F.2d 1071, 1075, 5 USPQ2d 1596, 1599 (Fed. Cir. 1988); *In re Geiger*, 815 F.2d 686, 688, 2 USPQ2d 1276, 1278 (Fed. Cir. 1987). The cited art simply does not teach or suggest the specific sequences identified in SEQ. IDs 1 and 8 and those sequences fully complimentary to them.

Moreover, none of the cited references mentions primer sequences that do not contain degenerate nucleotides. The Examiner argues that the ordinary artisan would have been motivated to select any number of primers for amplifying a region of HPV, which could be used to identify a large number of HPV genotypes. However, as Gravitt mentions (p.357, second column), even the L1 regions were not entirely homologous even among the five HPV types, and positions with nucleotide heterogeneity were accommodated by inclusion of degenerate base sites. Moreover, as mentioned in Chen et al. (p. 3074, second column), a new HPV type is defined as one that shows more than 10% dissimilarity in the combined nucleotide sequences of the E6, E7, and L1 genes when compared with previously known HPV types. In other words, there are many variant or degenerate nucleotides, even the L1 region among the HPV genotypes. Accordingly, even aligning the L1 regions among the HPV types in order to design primers that can amplify various HPV genotypes can result in primer sequences with a lot of degenerate nucleotides. Therefore, it is not routine for the ordinary artisan to select primer sequences that do not contain any degenerate nucleotides from all the possible primer sequences.

Since the claimed primer pairs are not obvious, claim 19 is not obvious because it is directed to a kit comprising a claimed primers.

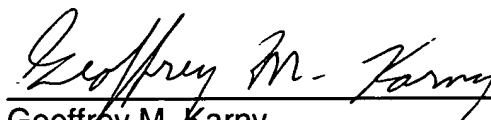
Conclusion

View of the forgoing remarks, the Applicants respectfully submit that all rejections have been overcome and should be withdrawn. Accordingly, the Applicants submit that the application is in condition for allowance.

If the Examiner believes that a personal communication would expedite the prosecution of this application, she is invited to telephone the undersigned at the number provided below.

The Commissioner is hereby authorized to charge any appropriate fees under 37 C.F.R. §§ 1.16, 1.17, and 1.21 that may be required by this paper, and to credit any overpayment, to Deposit Account Number 50-3380.

Respectfully submitted,



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